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MONTANA DEPARTMENT OF HEALTH  
AND ENVIRONMENTAL SCIENCES

Monthly Activities Report  
of the Air Quality Bureau

June, 1977

STATE DOCUMENTS

1. Highlights

Montana Power Company and Puget Power obtained permission to float industrial bonds for pollution control facilities for \$14,000,000.

Responded to a Hazardous Material Response Team request to go to Missoula regarding train derailment of chlorine, hydrochloric acid and naptha cars.

2. Ambient Air Quality Network

a. Standards Exceeded:

SO<sub>2</sub> ambient air quality standards near Anaconda Smelter

State 1-hr	62
State 24-hr	10
Fed. 24-hr	6
Fed. 3-hr	4

TSP\*

Anders Res., Columbia Falls, 4 excur. Fed Std.  
Anders Res., Columbia Falls, 2 excur. St. std.  
Sherman Res., Kalispell, 1 excur. Fed. Std.  
Sherman Res., Kalispell, 1 excur St. Std.

\*Total suspended particulate

b. Air Stagnation Advisories:

None issued during June

c. Laboratory Status:

Total Determinations for Month: 460  
Total samples for the month: 236

d. Developments:

Hired new lab aide for the summer to assist with Troy Project.

3. Permits and Tax Credits

a. Construction Permits

Applications:

Rolanda Feeds, Inc., Townsend, dehydrating plant, rotary dryer  
Wickens Brothers, Fergus County, gravel crushing plant  
Gus M. Albert, Roosevelt County, hot mix plant

WEL SP 1477

a. Construction Permits - Applications (Cont.)

Zook Brothers Const., Deer Lodge County, hot mix plant  
Baltrusch Constr. Co., Rosebud County, hot mix plant  
Zook Brothers Const., Big Sky, batch plant  
Zook Brothers Const., Big Sky, batch plant  
Pfizer Inc., Dillon, centra vacuum system  
Baltrusch Construction Co., hot plant  
Earth Builders, Inc., Daniels County, crusher, screening plant  
Zook Brothers, Deer Lodge County, crusher

Permits Approved:

Wickens Brothers, Fergus County, gravel crushing plant  
Gus M. Albert, Roosevelt County, hot mix plant  
Baltrusch Construction, Rosebud County, hot mix plant  
Zook Brothers, Big Sky, batch plant  
Zook Brothers, Big Sky, batch plant  
Baltrusch Construction, hot plant  
Earth Builders, Inc., Daniels County, crusher, screening plant  
Phillips Petroleum Co., Black Eagle, towers, furnaces, pumps  
St. Regis, Libby, venturi scrubber, \$217,765  
St. Regis, Libby, venturi scrubber, \$307,235

c. Tax Credit:

Montana Power Company and Puget Power obtained permission to float industrial bonds for pollution control facilities for \$14,000,000

4. Variance Status

a. Current:

ASARCO, Inc., is seeking a year's extension of their present variance which expires June 30, 1977. Relief from MAC 16-2.14(1)-S1470, Sec. 2, Sulfur Oxide Emissions - request will be heard at July 22 Board meeting.

Anaconda Aluminum Co., Columbia Falls, F<sup>-</sup> and particulate, expires June 30, 1977, renewal applied for.

Renewed:

Anaconda Mining variance from particulate emissions and visible emissions rules, granted June 26, 1977.

Anaconda Mining request for renewal of variance from particulate emissions (smelter).



5. Enforcement Actions

a. Citation:

City of Kalispell, Kalispell - 770623-JP-3, Roadways near Daley Field, in violation of rule 16-2.14(1)-S1440 (Particulate Matter, Airborne)

b. Notice of Violation:

None

c. Order for Corrective Action:

Montana Sulphur and Chemical ordered to install process control system for incineration system.

Big Horn Calcium Company ordered to prepare emission and control evaluation of Warren, Montana, process.

d. Court Actions:

None

6. TP Burner and Open Burning

Tepee Burner Inventory

No. at Start	39
New Starts	0
Shutdowns	0
No. at end	39

Letters sent to Riverside, Yount's and Gebhart's sawmills in Roundup to stop open burning of mill wastes.

Permits Issued:

Cascade County	5	Flathead County	70
Sanders County	53	Yellowstone County	20
Missoula County	5	Rest of State	656
Lake County	12	Total	911

7. Source Tests Performed

a. Agency Source Tests:

Pre-survey source test, Silver Bow County hot mix plant, Butte

b. Non Agency Tests:

Colstrip, monitoring performance tests, YS&B Lab, Colstrip Unit No. 1, stack test - results: in compliance



7. b. Continued

Hoerner-Waldorf, Missoula, 15 particulate tests on recovery boilers, lime kilns, slakers, smelt tanks, and hogged fuel boiler

Intermountain Lumber, Missoula, hogged fuel boiler, in compliance

8. Field Investigations

Big Horn Calcium Company, Warren, initiated development of emission control program

Colstrip, monitor performance tests

Cenex, Billings, inspection

Colstrip, Units #3 and 4, document construction progress

Stauffer Chemical, opacity observations and plant inspection

Bruce Bannon, Clancy, pine pollen, investigation

Balford Nead, Livingston, possible legal action by county attorney

Mr. Messick, Livingston, legal action by county attorney

Trident Cement, Three Forks, routine inspection

Rite-way Asphalt, Butte, no action taken

Montana Pole, Butte, no action taken

Spring Creek Lumber, Judith Gap, inspection

Hilger Ore Milling, Hilger, inspection

White Sulphur Springs, Castle Mountain, tepee burners, inspection, out of compliance

Lewistown, Grand S Lumber, tepee burner, inspection

9. Complaints

Shell Oil, Baker, oil spill, permission given to burn to dispense oil

Paint Shop, Ronan, paint fumes, investigation

Rite-Way Asphalt, Butte, excessive dust, investigation

Mr. Messick, Livingston, open burning, investigation

Balford Nead, Livingston, open burning tires, investigation

Individual, Anaconda smelter, investigation

Bruce Bannon, Clancy, green dust in air, investigation (pollen)

Insulation Shop, Great Falls, blowing paper, referred to Great Falls

10. Data Processing Services

a. Ambient Data Summary:

See summary attached for May

b. Emission Inventory Status:

Several updates received and processed.

c. Prevention of Significant Deterioration

Discussed Clean Air Act Amendments for 1977 with Northern Cheyenne Research Project representatives

d. Modeling:

Significant time spent in diffusion modeling analysis of Billings AQMA SO<sub>2</sub>.





11. Environmental Impact Statements

- a. Agency Impact Determinations: None for June
- b. Other Agency EIS's Reviewed: None for June

12. Status of Studies, Contracts and Reports

Air Quality Annual Report - rough draft submitted for comments  
Billings SO<sub>2</sub> - need for monitoring  
Billings CO - Devised way of verifying validity of HIWAY model  
Billings TSP - local government submitted Level II update  
Missoula TSP - Committees continue to meet  
S.E. Coal TSP - Control measures reviewed by companies, Dept. of State Lands, and staff  
Butte TSP - Pedco analysis continued  
Public Information Program - Jan Bowden will take responsibility  
Health Study, Phase I - EPA in RTP is reviewing data submitted by Bureau of Records and Statistics  
Health Study, Phase II - Funding approved; waiting for EPA to finish reviewing data from Phase I  
MAPS - Working on study design  
ASARCO Troy Project - background sampling, one station operational, awaiting power for #2  
Report was received from Pacific Environmental Services regarding Anaconda smelter

13. Schools and Training

None held in June  
None attended in June

14. Public Hearings and Meetings

- a. Public Hearings Held:

Board of Health, June 27, 1977 - Status report on Colstrip 1 & 2;  
Variance requests

- b. Meetings Attended:

Met with Exxon and Montana Sulphur and Chemical Company on Billings SO<sub>2</sub> modeling in Helena  
EPA workshops, Denver (air quality data system and emission inventory system)  
Met with Conoco and Montana Power, Helena, Billings AQMA  
Highway Impact Evaluation Group, Helena  
Montana Coal Council, Helena, discuss newsletter  
TAC Missoula, TSP problem  
Missoula City-County Health Dept., control measures, in Missoula  
University of Oklahoma researchers in Helena, discuss effects of energy development on air quality  
Public meeting in Missoula concerning Health Study  
Met with ERDA, EPA, concerning future monitoring strategy in Colstrip  
Met with persons concerning proposed open burning rule change  
Annual APCA meeting, Toronto, Canada  
Helena, met with Hoerner-Waldorf regarding new owner



14. b. Continued

Helena, State Fire Marshal, open burning rule changes  
Helena, GCA, MAPS  
Missoula, Airshed, open burning rule changes  
Helena, Rockwell, concerning MAPS  
Orientation, Helena  
Anaconda, smelter, to discuss shutdown of EP  
Department of State Lands, Helena, SE Coal Area AQMA  
Cenex, Great Western, Helena, to discuss Billings AQMA  
Helena, Federal Bentonite and Econ, Inc., to discuss proposed mine and  
drying plant near Glasgow

c. Intra-Staff Meetings:

Western Energy Company, issuing citation for Colstrip violations, Helena  
Westmoreland expansion at Sarpy Creek, in Helena  
Billings SO<sub>2</sub> problem, Helena  
AQMA status, Helena  
MAPS, Helena  
Operation permit structure, Helena  
Legal Unit, regarding Hoerner-Waldorf  
Missoula AQMA, in Helena

15. Public Information Requests

Rules 6  
Clean Air Act 3  
General Information 4



## May 1977

## Unit 1

AREA		HIGH MONTHS			ARITHMETIC AVER.		Comments
NOCH	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Data	
140	Horton Res.						
	Big Horn Co.	95	148	202	44.7	5	
	Horton Ranch						
	Big Horn Co.	51	51	146	16.3	5	
	Lockwood School	137	137	137	47.0	5	
	Billings	163	163	163	39.2	5	1 excur Fed. base std.
141	Billings						
	City Hall	165	165	165	66.6	5	1 excur Fed. base std.
	Grand Ave. School						
	Billings	155	155	155	56.0	5	1 excur Fed. base std.
	Burns Road Drive						
	Billings			XX			
143	Laurel Cr. High	150	150	150	39.1	5	
	Laurel						
	Hospital Roof	225	225	225	45.8	5	1 excur Fed. base std.
142	Great Falls	80	869	869	87.1	5	1 excur MT 28
	Fire Sta. #1						
	Great Falls						
144	Hi-way Jct.	78	90	94	37.9	5	
	Anaconda						
	McKinley Res.	73	90	94	37.9	5	
	Granite Co.						
	Microvase	103	103	103	25.2	5	
143	Jefferson Co.						
	212 Pacific Ave.	77	149	187	68.6	5	1 excur Fed. base std.
	Lewie and Clk. Co.						
143	Elkhai	535	535	535	88.8	5	1 excur Mt. 28
	Carter Co.						

xx Site no longer in operation

Unit 78

AREA		HIGH READINGS			ARITHMETIC AVERAGE		
WQCR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Years of Data	Comments
43	Littlefield Hill						
	Miles City	16	27	50	10.2	5	
	Lawton Co.	17	51	102	25.4	5	
	Fort Peck	88	91	91	47.6	5	
	McDowell						
	Powder River Co.	275	275	275	28.3	5	1 excur Fed. Sec. 1 excur. 24th. 18th.
	MT Site -						
	Colstrip	46	93	104	35.9	5	
	McRae Site						
	Colstrip	36	102	102	18.5	5	
144	High School						
	Col. Falls	223	223	294	92.0	5	2 excur. Fed. Sec. 1 excur MT 24th.
	Courthouse						
	Missoula	130	295	342	103.0	5	
	SB Field						
	Missoula Co.	86	140	214	53.0	5	
	Frenchtown						
	Missoula Co.	68	255	255	49.4	5	
	Salispell						
	Flatehead Co.	152	177	177	89.2	5	1 excur Fed. Sec. 24th.
	Troy						
	Lincoln Co.	85	122	122	42.2	5	

Units

AREA		HIGH FLYING			ARITHMETIC AVER.		
ACQ#	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Data	Comments
	<u>Carbon Monoxide</u>						
140	27th & Montana						
	Billings						
144	Malfunction Jct.						
	Missoula						
	<u>Hydrocarbons</u>						
140	27th & Montana						
	Billings						
143	IN Site						172 excur Mt.ST
	Colstrip						
	<u>Non-Hydrocarbons</u>						
143	IN Site						
	Colstrip						
	<u>Non-NOx HC</u>						
143	IN Site						
	Colstrip						
	<u>Nitric Oxide</u>						
143	IN Site						
	Colstrip						
	<u>Nitrogen Dioxide</u>						
140	27th & Montana						
	Billings						
143	IN Site						
	Colstrip						
	<u>Ammonia Nitrogen</u>						
143	IN Site						
	Colstrip						

United States

AREA		HIGH READING			ARITHMETIC AVERAGE		Comments
ACQR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Readings	
	<u>Ozone</u>						
140	27th & Montana						
143	Billings	0.06	0.06	0.10	0.019	5	
	<u>PM Site</u>						
	Colstrip						
	<u>Sulfur Dioxide</u>						
140	27th & Montana						
	Billings	0.03	0.20	0.20	0.002	5	
	<u>Laurel Farm</u>						
	Billings	0.54	0.61	0.80	0.062	5	3 excur Mt. 1-hr
142	<u>East Stack</u>						
	East Helena	0.44	0.44	0.44	0.014	5	5 excur Mt. 1-hr 1 excur Not Pri.
	<u>Microwave</u>						
	East Helena	0.34	0.51	1.08	0.011	5	3 excur Mt. 1-hr
	<u>Saddle Mountain</u>						
	East Helena	0.78	0.78	0.78	0.012	5	1 excur Mt. 1-hr
	<u>Coppsell Bldg.</u>						
	Helena	0.16	0.40	0.40	0.006	5	1 excur Mt. 24 hr 2 excur Not sec.
	<u>C-Hill</u>						
	Anaconda	1.05	1.05	1.05	0.010	5	
	<u>Hi-way Jct.</u>						
	Anaconda	0.80	1.46	1.58	0.029	5	1 excur Not pri. 1 excur not sec.
	<u>Mill Creek</u>						
	Anaconda	0.50	0.89	.136	0.019	5	1 excur Mt. 24 hr 1 excur not pri.
143	<u>PM Site</u>						
	Idaho						



## MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

## MONTHLY SUMMARY OF AIR QUALITY DATA

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May 1977

Pollutant: Misc. Indicators

Units:

	AREA	HIGH READING			ARITHMETIC A.V.P.			
AQCR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Months of Data	Comments	
142	Fluoride Plates Fullerburg Powell Co. Lahman's Powell Co. N. Ac. Hwy Powell Co. Ramsay West Sil. Hwy Co. USP Stauffer Sil. Hwy Co.	---	---	---	---	---	---	
143	IN Site Colstrip McRae Site Colstrip	---	---	---	---	---	---	
144	Cochlone Mt. Box Flathead Co. Anaconda South Flathead Co. Glac. Park #1 Glac. Nat. Park Glac. Park #2 Glac. Nat. Park	1.610 7.550 0.230 0.250	1.610 7.550 0.330 0.500	1.710 9.650 0.400 0.530	0.712 3.235 0.268 0.398	5 5 5 5	---	

Pollutant: Misc. Indicators

Units:

AQCR	AREA	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Months of Data	
142	Fluoride Plates	- mg	mg/cm	10 days			
	Gardent Canyon			XXX-			
	Deer Lodge Co.			XXX-			
	N. Ac. Hwy			XXX-			
	Powell Co.			XXX-			
	IN on Hill			XXX-			
	Powell Co.			XXX-			
	Ramsay West			XXX-			
143	SIL. Hwy Co.			XXX-			
	USP Stauffer			XXX-			
	SIL. Hwy Co.			XXX-			
	IN Site			XXX-			
144	Colstrip			XXX-			
	McRae Site			XXX-			
	Colstrip			XXX-			
	Teakettle # 6			XXX-			
	Flathead Co.			XXX-			
	Anaconda South			XXX-			
	Flathead Co.			XXX-			
	Glac. Park # 1			XXX-			
	Glac Nat. Park			XXX-			
	Glac. Park # 2			XXX-			
	Glac Nat. Park	0.470	0.710	0.740	0.620	5	

XXX- Data not available at time of report.

Pollutant: Misc. Indicators

Units:

AQCR	AREA	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Months	
141	Salmon - Trout Mountain States Great Falls Fire Co. # 1 Great Falls subgrounds Great Falls Collection Rate	1.87 20.94 19.49 31.36 ---	1.87 20.94 33.23 31.46 ---	1.87 44.05 25.93 31.46 1109.8	20.90 19.15 12.22 ---	5 5 5 5 5	
142	3/8 mi. NE Coop Billings East of Laurel Billings Hill-Hall Trucking Billings Stock Car Track Great Falls Phillips Ref. #1 Great Falls Phillips Ref. #2 Great Falls Microwave East Helena Hwyway Jct.	1.710 4.380 0.730 0.950 0.300 0.366 0.710 ---	4.380 3.220 0.190 0.410 0.620 0.575 0.710 ---	4.000 3.220 0.410 0.107 0.620 0.575 0.710 ---	2.843 1.923 0.107 0.435 0.326 0.442 ---	5 5 5 5 5 5 5 5	
143	Anaconda Hill Anaconda Hill Site Colstrip McRae Site Colstrip	---	---	---	---	---	

Pollutant: Misc. Bubblers Data

Units: ppm

	AREA	HIGH READING			ARITHMETIC AVER.		
AQCR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Months of Data	Comments
140	Sulfur Dioxide Lockwood School Billings 3/8 mi. NE Coop Billings	0.0519	0.0611	0.2012	0.0198	5	
143	Scobey Daniels Co. St. Peck McCone Co Lame Deer Rosebud Co. IN Site Colstrip McRae Site Colstrip Nitrogen Dioxide	0.0 0.0 0.0 0.0 ----- ----- ----- ----- ----- ----- ----- -----	0.0 0.0 0.0 0.0 ----- ----- ----- ----- ----- ----- ----- -----	0.0 0.0 0.0 0.0 ----- ----- ----- ----- ----- ----- ----- -----	0.0 0.0 0.0 0.0 ----- ----- ----- ----- ----- ----- ----- -----	5 5 5 5 ----- ----- ----- ----- ----- ----- ----- -----	
143	Scobey Daniels Co. St. Peck McCone Co Lame Deer Rosebud Co. IN Site Colstrip McRae Site Colstrip	----- ----- ----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- ----- ----- -----	

XXX - Data not available at time of report

